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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,386	03/26/2004	Herbert Hartgrove	PGI6044P2441US	8629

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EXAMINER	
SPERTY, ARDEN B	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/810,386	HARTGROVE ET AL.	
	Examiner	Art Unit	
	Arden B. Sperty	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) *1-4* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

FINAL OFFICE ACTION

1. Applicant's claim amendments, resubmitted 2/28/06 in response to a notice of non-compliant amendment, have been entered. The comments, submitted 11/14/05, have been carefully considered. The claims remain rejected in view of the prior art, as stated herein.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear whether "100% nonwoven" is intended to imply that the layers of the fabric are joined solely by nonwoven means, or if it is intended to mean that only nonwoven layers are employed in the fabric. The comprising language renders the latter inconsistent. Interpretation in favor of the former is indicated. Since "100% nonwoven" is not defined in the specification, the teachings of the specification are evaluated to ascertain the scope of the newly added limitation. The specification includes embodiments which employ a film layer, thus again the latter situation appears unlikely. The "100% nonwoven" limitation is interpreted as referring to the methods of joining layers.

Claim Rejections - 35 USC § 103

4. Claims 5, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2004/0132368 to Price et al., in view of US 6,660,503 to Kierulff, as stated in the previous office actions.

> The Price reference teaches a fabric material comprising nonwoven batting layers sandwiching a ballistic grade layer (See paragraph [0018]). The nonwoven batting layers are fire-resistant since they are made of aramid, modacrylic, and natural fibers (See [0019]). The layers are joined by hydroentangling (See [0027]). While the reference does not specifically disclose lyocell fibers, lyocell is known in the art to be functionally equivalent to the natural fibers taught by Price, a position that is supported by Kierulff, which teaches flame retardant fabrics using cotton, linene [sic], lyocell, and others interchangeably. It would have been obvious to one of ordinary skill in the art to substitute lyocell for cotton to improve the hand and softness of a fabric.
>
> Amended claims 7 and 8 are further rejected as being unpatentable over the combination of Price and Kierulff. Optimizing the amounts in a blend of fibers, in order to achieve desired properties, is basic in the textile engineering art. The resulting properties are predictable according to the materials used. Absent a showing of unexpected results with the specifically claimed composition, it would have been obvious to one of ordinary skill in the art to modify the fiber blend as necessary to achieve desired properties.

Specifically regarding the newly added "100% nonwoven" requirement of claim 5, which is interpreted as stated above to refer to the methods of joining the layers, the layers of the prior art are joined by hydroentangling (see para [0027]). Thus, the requirements of the claims appear to be met.

5. Claims 6 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Price and Kierulff, as stated with regard to claim 5 above, and further in view of US

Pub. No. 2002/002764 to Putnam et al. The Putnam reference qualifies under the 35 USC 102(b) statute, thus the rejection cannot be overcome by invocation of 35 USC 103(c).

> The combination of Price and Kierulff teaches the hydroentangled material as stated previously. The combination is not concerned with patterning or imparting a three-dimensional image to the material. Although the references are not specifically concerned with imparting an image by hydroentangling, doing so would have been obvious to one of ordinary skill in the art motivated by a desire for improved aesthetic properties (Putnam, para. 3 and throughout). Absent a showing of unexpected results imparted by the three-dimensional imaging process, imparting aesthetic elements by known means would have been obvious to one of ordinary skill in the art.
>
> Further, optimizing the amounts in a blend of fibers, in order to achieve desired properties, is basic in the textile engineering art. The resulting properties are predictable according to the materials used. Absent a showing of unexpected results with the specific compositions of claims 9 and 10, it would have been obvious to one of ordinary skill in the art to modify the fiber blend as necessary to achieve desired properties.

Specifically regarding the newly added "100% nonwoven" requirement of claim 6, which is interpreted as stated above to refer to the methods of joining the layers, the layers of the prior art are joined by hydroentangling (see para [0027]). Thus, the requirements of the claims appear to be met.

Response to Arguments

6. Applicant's arguments filed 11/14/2005 have been fully considered but they are not persuasive. Applicant again argues that Price teaches woven fabrics, not nonwoven fabrics. The examiner again points out that Price teaches nonwoven fabrics. The invention of Price clearly includes two nonwoven layers with woven layers sandwiched therebetween, as can be seen in Figure 1. Applicant did not previously argue the

combination of Price and Kierulff, but chooses to do so now. The examiner remains of the position that the lyocell fibers of the Kierulff reference are known functional equivalents to the cellulosic fibers of the Price reference, and that it would have been obvious to make such substitutions to improve the hand and softness of a fabric. In response to Applicant's argument that the Price reference does not teach flame retardant materials, the properties of fabrics made of the same materials will be the same.

7. Applicant does not argue the rejection of Price and Kierulff in view of Putnam.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arden B. Sperty whose telephone number is (571)272-1543. The examiner can normally be reached on M-Th, 08:00-16:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571)272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Arden B. Sperty
Examiner
Art Unit 1771

May 03, 2006